CLAIMS

1. A method in a communication system, comprising the steps of:

a control unit (105) requesting from an access point (103) a number of periodic measurement reports regarding a number of links (102) handled by the access point (103); and

receiving at the control unit (105) said requested number of periodic measurement reports from the access point (103) over a control interface (104) connecting said control unit (105) with said access point (103) and having a limited total capacity for forwarding measurement reports

characterised by the further step of

determining dynamically a frequency for periodical reporting of each periodic measurement report from the access point (103) to the control unit (105) based on information on said number of links (102) currently handled by the access point (103) and such that a total aggregate frequency of periodical reporting of said number of periodic measurement reports does not exceed said limited total capacity of the control interface (104).

2. The method according to claim 1 wherein the step of determining the frequency for periodical reporting of each periodic measurement report includes the step of supervising the total number of links (102) currently handled by the access point (103).

3. The method according to claim 1 or 2 wherein the step of determining the frequencies for periodical reporting of each periodic measurement report is accomplished according to the formula $f_r = k * w_r$ wherein f_r denotes the frequency for periodic measurement report r, w_r denotes a weighting coefficient defining a priority for the periodic measurement report r and wherein k is a factor dynamically determined as:

$$k \leq \frac{F}{\sum_r w_r}$$

wherein F is the limited total capacity of the control interface (104) expressed in reports per second.

4. The method according to any of claims 1-3 wherein the frequency determined for periodical reporting of a periodic measurement report depends on a measurement type of the periodic measurement report.

5. The method according to claim 4 wherein the frequency determined for periodical reporting of the periodic measurement report depends on the importance of said measurement type with regard to the performance of the communication system.

6. The method according to any of claims 1-5 wherein the frequency determined for periodical reporting of a periodic measurement report depends on information on a measurement value in a periodic measurement report.

7. The method according to claim 6 wherein said number of periodic measurement reports have one and the same measurement type and wherein the frequency for periodical reporting of each periodic measurement report is determined according to the formula

$$f_r = \frac{F * mv_r}{\sum_r mv_r}$$

wherein f_r denotes the frequency of periodic measurement report r, F denotes the limited total capacity of the control interface (104) and mv_r denotes the measurement value of periodic measurement report r.

8. The method according to claim 6 wherein said number of periodic measurement reports have one and the same measurement type and wherein the frequency for periodical reporting of each periodic measurement report is determined according to the formula

$$f_r = k * \frac{std(mv_r(t))}{\sum_r mv_r}$$

wherein f_r denotes the frequency of periodic measurement report r, mv_r denotes the measurement value of periodic measurement report r,

$std(mv_r(t))$ is the relative standard deviation of the measurement value of periodic measurement report r and wherein k is a factor defined such that

$$\sum_r f_r \leq F$$

wherein F is the limited total capacity of the control interface (104).

9. The method according to claim 1 or 2 wherein the step of determining the frequency for periodical reporting of each periodic measurement report is accomplished according to the formula $f = F/N$, wherein f is the frequency for each periodic measurement report, F is the limited total capacity of the control interface (104) expressed in reports per second and N is the current number of requested periodic measurement reports.

10. The method according to any of claims 1-9 further comprising the step of:
updating the frequency for periodical reporting of each periodic measurement report from the access point (103) to the control unit (105) in response to a link (102) being added to or removed from said number of links (102) handled by the access point (103).

11. The method according to any of claims 1-10 further comprising the step of:
updating the frequency for periodical reporting of each periodic measurement report from the access point (103) to the control unit (105) in response to a measurement value for a link (102) being modified.

12. The method according to any of claims 1-11 wherein said number of periodic measurement reports are received by a measurement proxy (204) in the control unit (105) from the access point (103) over the control interface (104) at the determined frequencies for periodical reporting of said number of periodic measurement reports, and wherein the measurement proxy (204) emulates and delivers the received number of periodic measurement reports to at least one subunit (205,206) in the control unit (105) at frequencies requested by the at least one subunit (205, 206), and wherein the determined frequencies for periodical

reporting can differ from the frequencies requested by the at least one subunit (205,206).

13. The method according to claim 12 wherein the measurement proxy (204) coordinates at least two requests from at least two subunits (205, 206) for periodic measurement reports of the same measurement type and regarding the same link (102) into a single request for a periodic measurement report from the access point (103).

14. The method according to any of claims 1-13 wherein the limited total control interface capacity for forwarding measurement reports is detected by the control unit (105) through testing of the control interface (104) in an initialisation phase, wherein the control unit (105) requests periodic measurement reports at a gradually increasing frequency until the total control interface capacity is reached.

15. A communication system comprising:

an access point (103) handling a number of links (102);

a control unit (105) for controlling resource allocation at the access point (103), wherein the control unit (105) is arranged to request from the access point (103) a number of periodic measurement reports regarding said number of links (102) handled by the access point (103);

a control interface (104) for connecting said control unit (105) with said access point (103) and having a limited total capacity for forwarding measurement reports to the control unit from the access point,

characterised in that,

the system is arranged to dynamically determine a frequency for periodical reporting of each periodic measurement report from the access point (103) to the control unit (105) based on information on said number of links (102) currently handled by the access point (103) and such that a total aggregate frequency of periodical reporting of said number of periodic measurement reports does not exceed said limited total capacity of the control interface (104).

16. The communication system according to claim 15 wherein the system further includes means for supervising the total number of links (102) currently handled by the access point (103).

17. The communication system according to claim 15 or 16 wherein the system is arranged to determine the frequency for periodical reporting of each periodic measurement report according to the formula $f_r = k * w_r$ wherein f_r denotes the frequency for periodic measurement report r, w_r denotes a weighting coefficient defining a priority for the periodic measurement report r and wherein k is a factor dynamically determined as:

$$k \leq \frac{F}{\sum_r w_r}$$

wherein F is the limited total capacity of the control interface (104) expressed in reports per second.

18. The communication system according to any of claims 15-17 wherein the system is arranged to determine the frequency for periodical reporting of a periodic measurement report such that it depends on a measurement type of the periodic measurement report.

19. The communication system according to claim 18 wherein the system is arranged to determine the frequency for periodical reporting of a periodic measurement report such that it depends on the importance of said measurement type with regard to the performance of the communication system.

20. The communication system according to any of claims 15-19 wherein the system is arranged to determine the frequency for periodical reporting of a periodic measurement report such that it depends on information on a measurement value in the periodic measurement report.

21. The communication system according to claim 20 wherein the system is arranged to request periodic measurement reports having one

and the same measurement type and wherein the system is further arranged to determine the frequency for periodical reporting of each periodic measurement report according to the formula

$$f_r = \frac{F * mv_r}{\sum_r mv_r}$$

wherein f_r denotes the frequency of periodic measurement report r, F denotes the limited total capacity of the control interface (104) and mv_r denotes the measurement value of periodic measurement report r.

22. The communication system according to claim 20 wherein the system is arranged to request periodic measurement reports having one and the same measurement type and wherein the system is further arranged to determine the frequency for periodical reporting of each periodic measurement report according to the formula

$$f_r = k * \frac{std(mv_r(t))}{\sum_r mv_r}$$

wherein f_r denotes the frequency of periodic measurement report r, mv_r denotes the measurement value of periodic measurement report r, $std(mv_r(t))$ is the relative standard deviation of the measurement value of periodic measurement report r and wherein k is a factor defined such that

$$\sum_r f_r \leq F$$

wherein F is the limited total capacity of the control interface (104).

23. The communication system according to claim 15 or 16 wherein the system is further arranged to determine the frequency for periodical reporting of each periodic measurement report according to the formula $f = F/N$, wherein f is the frequency for each periodic measurement report, F is the limited total capacity of the control interface (104) expressed in reports per second and N is the current number of requested periodic measurement reports.

24. The communication system according to any of claims 15-23 wherein the system furthermore is arranged to update the frequency for

periodical reporting of each periodic measurement report from the access point (103) to the control unit (105) in response to a link being added to or removed from said number of links (102) handled by the access point (103).

25. The communication system according to any of claims 15-24 wherein the system furthermore is arranged to update the frequency for periodical reporting of each periodic measurement report from the access point (103) to the control unit (105) in response to a measurement value for a link (102) being modified.

26. The communication system according to any of claims 15-25 wherein the control unit (105) further comprises

a measurement proxy (204) for receiving said number of periodic measurement reports from the access point (103) over the control interface (104) at the determined frequencies for periodical reporting of said number of periodic measurement reports; and

at least one subunit (205, 206) for requesting a periodic measurement report at a requested frequency,

wherein the measurement proxy (204) is arranged to emulate and deliver a received periodic measurement report to the at least one subunit (205, 206) at the requested frequency and wherein a determined frequency for periodical reporting of the received measurement report can differ from the frequency requested by the at least one subunit (205, 206).

27. The communication system according to claim 26 wherein the measurement proxy (204) is further arranged to coordinate at least two requests from at least two subunits (205, 206) for periodic measurement reports of the same measurement type and regarding the same link (102) into a single request for a periodic measurement report from the access point (103).

28. The communication system according to any of claims 15-27 wherein the control unit (105) furthermore is arranged to detect the limited total control interface capacity for forwarding measurement

reports through testing of the control interface (104) in an initialisation phase, wherein the control unit (105) requests periodic measurement reports at a gradually increasing frequency until the total control interface capacity is reached.

29. The communication system according to any of claims 15-28 wherein the access point (103) is arranged to dynamically determine the frequency for periodical reporting of each periodic measurement report from the access point (103) to the control unit (105).

30. A computer program product comprising computer software means arranged to execute on a control unit (105) and to cause the control unit to perform the method according to any of claims 1-14 when executed.

31. A control unit (105) arranged to perform the method according to any of claims 1-14.